

SOLAR COLLECTOR AND METHOD

ABSTRACT OF THE DISCLOSURE

An apparatus and method for collecting solar energy are provided. The apparatus is a trough-type solar collector having one or more mirrors and lenses for directing solar radiation toward a receiver configured to receive a heat transfer fluid therein. The amount of solar radiation directed toward the receiver can be controlled by adjusting one or more of the mirrors and/or lenses or by adjusting a shade. Thus, the collector can direct different amounts of solar radiation toward the receiver, thereby selectively heating the receiver at different rates, e.g., to preheat the receiver, to heat fluid in the receiver for power generation, or to thaw solidified fluid in the receiver. Subsequently, the heated fluid can be used to generate steam and/or electricity.

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